

What Is Claimed Is:

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1. A control device for controlling a system, comprising:
 - a plurality of activatable modules, each of the activatable modules having a corresponding priority value;
 - a scheduler activating the activatable modules as a function of the corresponding priority values of the activatable modules to provide activated modules, the activated modules generating data by analyzing states of the system; and
 - a priority manager modifying the corresponding priority value of at least one of the modules.
 2. The control device according to claim 1, wherein the priority manager modifies the corresponding priority value of a particular module of the activatable modules as a function of a time period in which the particular module is one of activated and deactivated.
 3. The control device according to claim 1, wherein the priority manager modifies the corresponding priorities of activatable modules as a function of the states of the system.
 4. The control device according to claim 1, wherein the priority manager modifies the corresponding priority value of a particular module of the activatable modules as a function of the states of the system and a time period during which the particular module is one of activated and deactivated.
 5. The control device according to claim 1, wherein the priority manager modifies the corresponding priority value of a particular module of the activatable modules as a function of an activation message which indicates that the particular module has been activated.
 6. The control device according to claim 5, wherein the priority manager

modifies the corresponding priority value of the particular module as a further function of a corresponding deactivation message.

7. The control device according to claim 1, wherein the priority manager modifies the corresponding priority value of a particular module of the activatable modules as a function of absolute time signals.

8. The control device according to claim 1,

wherein the scheduler selects a first module having a highest priority for an activation, the first module being selected from a set of the activatable modules awaiting the activation,

wherein the scheduler assembles a residual set of the activatable modules from the set of the activatable modules, the residual set excluding the first module and second modules which must not be activated simultaneously with the first module, and

wherein the scheduler selects third modules from the residual set of the activatable modules for the activation.

9. The control device according to claim 8,

wherein the scheduler repeatably selects the third modules of the activatable modules for the activation, each of the third modules having a respective highest priority,

wherein the scheduler assembles the residual set of the activatable modules which exclude the third modules already selected for the activation and fourth modules which must not be activated simultaneously with the third modules, and

wherein the scheduler continues to repeatably select from the third modules and to assemble the residual set until the residual set does not contain any of the activatable modules.

10. The control device according to claim 8, wherein, after the first module and the third modules are selected, the scheduler verifies that the selected first and

third modules are activated and unselected modules of the activatable modules are not activated.

11. The control device according to claim 1, wherein the system includes one of a motor vehicle, an engine and a transmission.

12. A method for operating a control device which controls a system, the control device including a plurality of activatable modules, the method comprising the steps of:

assigning a corresponding priority value to each of the activatable modules;

activating the activatable modules as a function of the corresponding priority values to provide activated modules;

with the activated modules, generating data by observing states of the system; and

modifying the corresponding priority values of the modules.

13. The method according to claim 12, wherein the corresponding priority value of a particular module of the activatable modules is modified as a function of a time period during which the particular module is one of activated and deactivated.

14. The method according to claim 12, wherein the corresponding priority value of a particular module of the activatable modules is modified as a function of the states of the system.

15. The method according to claim 12, wherein the corresponding priority value of a particular module of the activatable modules is modified as a function of the states of the system and a time period during which the particular module is one of activated and deactivated.

16. The method according to claim 12, wherein the corresponding priority value

of a particular module of the activatable modules is modified as a function of an absolute time signal.

17. The method according to claim 12, further comprising the steps of:
- before the activating step, selecting a first module having a highest priority for an activation, the first module being selected from a set of the activatable modules awaiting the activation;
 - assembling a residual set of the activatable modules from the set of the activatable modules, the residual set excluding the first module and second modules which must not be activated together with the first module; and
 - selecting third modules from the residual set of the activatable modules for the activation.

18. The method according to claim 17, further comprising the steps of:
- before the activating step, selecting the third modules of the activatable modules for the activation, each of the third modules having a respective highest priority; and
 - assembling the residual set of the activatable modules which exclude the third modules already selected for the activation and fifth modules which must not run simultaneously with the third modules, wherein the third modules are selected and the residual set is assembled until the residual set does not contain any of the activatable modules.

19. The method according to claim 17, further comprising the step of:
- after the first module and the third modules are selected, verifying that the selected first and third modules are activated and unselected modules of the activatable modules are not activated, wherein the first and third modules are not activated until still-activated modules of the activatable modules, with which the first and third modules must not run simultaneously, have been deactivated.

THE UNIVERSITY OF CHICAGO